(19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 25 August 2005 (25.08.2005)

PCT

(10) International Publication Number WO 2005/077048 A2

- Not classified (51) International Patent Classification:
- (21) International Application Number:

PCT/US2005/004060

- (22) International Filing Date: 9 February 2005 (09.02.2005)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/542,987 9 February 2004 (09.02.2004) US 60/561,417 12 April 2004 (12.04.2004) US

- (71) Applicant (for all designated States except US): THE JOHNS HOPKINS UNIVERSITY [US/US]; 3400 N. Charles Street, Baltimore, MD 21218 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PARDOLL, Drew [US/US]; 19400 James Creek Court, Brookeville, MD 20833 (US). WHARTENBY, Katharine, A. [US/US]; 6308 Mossway, Baltimore, MD 21212 (US). GORSKI, Kevin, S. [US/US]; 4210 McKnight Rd. N., White Bear Lake, MN 55110 (US). CHAN, Camie [CA/US]; 503 Harborview Dr., Baltimore, MD 21230 (US).

- (74) Agent: CORLESS, Peter, F.; Edwards & Angell, LLP, P.O. Box 55874, Boston, MA 02205 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: IMMUNE MODULATION BY REGULATING EXPRESSION OF THE "MINOR" GENE IN IMMUNE DENDRITIC **CELLS**

(57) Abstract: Mitogen induced nuclear orphan receptor (MINOR) is described as inducing apoptosis in dendritic cells (DCs). Downregulation of its expression results in a downregulation of apoptosis. A novel approach of inhibiting DC apoptosis is described employing small interfering RNA (siRNA) that targets MINOR. Improved DC-based vaccines exhibiting longer lifespan of DCs, increased potency of DCs, and enhanced immunogenicity are described.